WHAT IS CLAIMED IS:

1. A dimming-control lighting apparatus for an incandescent electric lamp, the apparatus controlling the dimming to light a lighting device that uses the incandescent electric lamp as a light source by means of a dimming power source employing ignition phase angle control, comprising:

the lighting device including a first filament in which the rated voltage is less than the maximum output voltage of the dimming power source, and a second filament, having the same rated voltage as the maximum output voltage of the dimming power source;

a first power control unit connected to the first filament;

a second power control unit connected to the second filament; and

control means for controlling the first and second power control units connected to the first and second filaments, respectively, based on a sawtooth voltage that is supplied from the dimming power source and changed by adjusting the dimming,

wherein the control means, while maintaining a dimming characteristic of the dimming power source, is arranged to control the first and second power control units so as to first light the first filament, to start lighting the second filament after the color temperature of light emitted from the first filament reaches a

predetermined value, to compensate for degradation of the total color temperature due to the lighting start of the second filament by means of further increase of supply voltage for the first filament, and to increase the supply voltages for both the first and second filament in conformity with the dimming characteristic.

2. The dimming-control lighting apparatus for an incandescent electric lamp according to Claim 1, wherein the power ratio of the first filament and the second filament is in a range of the first filament:the second filament = 0.2:0.8 to the first filament:the second filament = 0.5:0.5, and the rated voltage value of the first filament is in a range of 0.5 to 0.7 times the maximum value of the dimming power source.

3. The dimming-control lighting apparatus for an incandescent electric lamp according to Claim 1, wherein the control means is digital means that includes a clock generator, a counter, a read-only memory (ROM), or the like, configured to detect the ignition phase angle of the sawtooth voltage changed by the dimming adjustment and supplied from the dimming power source by means of the clock signal from the clock generator, to read data from the ROM in which the dimming characteristic is written, based on the detection signal, and to digitally control each of the power control units.

4. The dimming-control lighting apparatus for an incandescent electric lamp according to Claim 2, wherein the control means is digital means that includes a clock generator, a counter, a read-only memory (ROM), or the like, configured to detect the ignition phase angle of the sawtooth voltage changed by the dimming adjustment and supplied from the dimming power source by means of the clock signal from the clock generator, to read data from the ROM in which the dimming characteristic is written, based on the detection signal, and to digitally control each of the power control units.

5. The dimming-control lighting apparatus for an incandescent electric lamp according to in Claim 1, wherein the control means is analog means arranged to supply the smoothing circuit with the sawtooth voltage that is supplied from the dimming power source and changed by the dimming adjustment, and to analog-control each of the power control units based on the output value from the smoothing circuit.

6. The dimming-control lighting apparatus for an incandescent electric lamp according to in Claim 2, wherein the control means is analog means arranged to supply the smoothing circuit with the sawtooth voltage that is supplied from the dimming power source and changed by the dimming adjustment, and to analog-control each of the power control units based on the output value

from the smoothing circuit.

7. The dimming-control lighting apparatus for an incandescent electric lamp according to Claim 1, wherein the respective power control units and the control means are built in the lighting device.